JAPANESE MULTINATIONALS, POLITICAL RISK AND DEMOCRACY: TOO MUCH OR TOO LITTLE?#

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Abstract: This paper attempts to examine the effects of Political Risk (PR) and Democracy on the Japanese outward Foreign Direct Investment (FDI) activities. Our theoretical model suggests an overall inverted U-shape response of FDI flows to PR and Democracy levels. To test the theoretical hypotheses we estimate a linear dynamic panel-data model by using data from 56 developed and developing countries for the period of 1995-2010. We find that an improvement in PR and Democracy promotes Japanese FDI to developing countries, and slightly discourages Japanese FDI to developed countries.

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I. Introduction

Recent empirical evidence suggests that capital flows to poor as well as to rich nations despite the standard neoclassical model prediction (Lucas 1990; UNCTAD 2012). To explain this phenomenon one should not attach the only significance to high capital/labor ratios, but rather examine other channels like institutional quality, human capital externalities etc. (Lucas 1990; Matsuyama 2014).

The central objective of this paper is to examine the effects of democracy and political risk (PR, hereafter) on the recent Japanese outward Foreign Direct Investment (FDI, hereafter) with a panel data of 56 developed and developing countries for the period of 1995-2010. In fact, Japanese case offers a favorable setting for conducting such an analysis. On the one hand, since 1990s Japan was continuously one of the main suppliers of world FDI.¹ On the other hand, Japan is a highly developed country considered to be one of the 3 largest world economies by the level of Gross Domestic Product (GDP). Finally, Japanese MNCs’ have been known to have a negative experience of their assets’ expropriation in 1970-1980s by some Middle-East host country governments. Thus it makes them more sensitive to host countries political and democracy environment.

It is now well established that countries’ attractiveness for FDI may depend on many factors (Dunning 1992; Eicher et al. 2012). We believe that these factors’ significance may lose or gain importance due to an endogenous effect of Political Risk and Democracy (we term PR and Democracy as Institutional Quality (IQ) for easiness of the explanation below in this section). Indeed, if we term all other factors OLI (Ownership, Location, Internalization), a simple theoretical model can be used to show that FDI decision may be affected by IQ through OLI channel² (we will demonstrate it in Section II). In this setting IQ may have non-monotonic effect on FDI through their effects on OLI. This implies that the overall effect of IQ could generate inverted U-shaped response of the Japanese FDI.

Why do MNCs respond differently to changes in IQ? Let us try to offer an intuitive explanation to this counterintuitive result (We will show it more formally in the theoretical section II and in the results section IV). Although it is often overlooked there are two aspects of IQ that may work in opposite directions. First it is clear that for a low level of IQ (for developing countries case) an increase in IQ stimulates FDI inflows since the cost of using OLI advantages becomes lower and thus profitability of the MNCs is affected positively. Second a certain level of IQ may, in fact, be far above what is necessary for MNCs operations. Thus, a decrease in IQ

¹ In 2010 Japan was the 8th largest country in the world by the volume of outward direct investment with an amount of 57 bil. USS. (JETRO 2011).
² OLI stands for Ownership, Location, Internalization advantages introduced by Dunning (1992). We abstract here from other theoretical models (e.g. well-known knowledge-capital model by Markusen (2002)) in order to accentuate pure effects of Political Risk and Democracy.
from a relatively higher initial level (for developed countries case) may actually induce “more discipline”, and, as a result, decrease the cost of using OLI advantages that will be transformed into higher profitability. Therefore it makes MNCs willing to finance more FDI. Note that this makes an overall effect of IQ on FDI flows generally ambiguous. The reason is that two effects work in the opposite direction. IQ may simultaneously increase and decrease the marginal cost of FDI due to the cost of using OLI advantages. We suggest that the first effect may dominate for developed countries case while the second effect may dominate for developing countries case. Therefore we expect an inverted U-shape relationship between IQ and FDI.

Although many studies have already examined the effects of Political Risk and Democracy on FDI flows, there have been only few attempts to formalize theoretically PR and Democracy effects on MNCs activities. In the model of Kesternich and Schnitzer (2010) MNCs choose capital structure of their foreign affiliates in response to political risk. Dadasov and Lotz (2013) determine how the risk of expropriation affect mode of international investment. These models however are limited to offering MNCs response to IQ level changes while our model attempts to address the economic cost of the FDI decision. Our analysis showed that the effect of PR on FDI flows may be in fact ambiguous for some cases.

Also many empirical studies have investigated the effects of PR on MNCs’ activity, and found a negative effect (Singh and Jun 1996; Wei 2000). A number of studies with panel data found a similar effect (Busse and Hefeker 2007). However, most studies do not distinguish between developed and developing or examine only developing countries as FDI recipients. At the same time these studies limit the consideration of PR effect by using homogeneous indexes. This is unfortunate because a composite index reflecting a heterogeneous nature of PR is provided by the Euromoney Country Risk Score. This index allows for capturing both stimulating/discouraging effects of PR on the cost of using OLI and thus inducing/impeding FDI activity. In fact, Clare and Gang (2010) employed this index to examine the political risk effect on inward FDI to 53 countries during 1999-2003, and found that political stability has a positive effect on FDI only for developing countries. On contrary, when the analysis moved from “manufacturing” to “All industries” the result changed to a paradoxical negative effect.

The non-monotonic behavior of FDI implied by the inverted U-shape response to PR might be somewhat evocative of the empirical finding by Peng and Beamish (2008) who empirically investigated Japanese FDI using a panel data set of 50 host countries from 1999-2003 by OLS and random effect regressions. They examined the relationship between FDI and host country’s corporate social responsibility (CSR) environment, and found that when composite index is used FDI flows may respond non-monotonically to different levels of

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CSR for developed/developing countries. In particular they emphasized that for developed countries CSR level may be far above what is necessary for MNCs.

Similarly, the empirical findings of Democracy’s effect on FDI flows are ambiguous. In fact, two influential papers by Li and Resnick (2003) and Jensen (2003) proposed different conclusions. Li and Resnick (2003) analyzed FDI net inflows to 53 developing countries in the period of 1982-1995, and found that Democracy actually might discourage FDI. The reason is that more autocratic governments may provide better business environment for monopolistic/oligopolistic companies and protect them from labor unions. They used Polity IV index as a measure of Democracy. On the contrary, Jensen (2003) suggested that Democracy might encourage FDI, since it provides a more stable business environment and increases protection for property rights. He analyzed the effects of democracy, measured by Polity III index, on FDI net inflows to 114 developed and developing countries in the period of 1970-1997.

In one of the recent works, Asiedu and Lien (2011) used three different composite indices for democracy; the data on political rights published by Freedom House, the democracy index published in Polity IV, and the ICRG index. They estimated a dynamic panel data model for 112 developing countries over the period 1982-2007, and found that all three composite indices had a positive effect on FDI “in countries where the share of natural resources in total exports is low”, and negative effect on FDI “in countries where exports are dominated by natural resources”. In this regard their finding is somewhat parallel to ours, as it reveals MNCs’ sensitivity to different levels of Democracy.

Mathur and Singh (2013) are probably one of the first who mentioned a possible effect on FDI of an interaction between Democracy measured by the Freedom House index and PR measured by the Corruption perception index. They analyzed a panel of 29 developing countries in the period of 1980-2000, and found that more democracy attracts less FDI. In addition, perceived corruption decrease might encourage FDI to the host country. Finally they discussed a possible interaction effect between Democracy and Corruption on FDI flows.

Our interpretation of the economic cost of PR and Democracy suggests that such an interaction effect of Democracy and PR may significantly affect FDI flows since it may strengthen both channels inducing the cost of using OLI, and, thus, FDI flows. We examine the interaction effect as well in section VI.

On balance, the present investigation of Japanese FDI has been motivated by at least two reasons. First of all, although a recent trend of FDI research has stressed potential importance of PR and Democracy that might affect FDI flows (e.g. Busse and Hefeker 2007), as far as the authors know, the effect on FDI has been mixed when different Democracy measures and a composite index of political environment is used (Peng and Beamish 2008; Li and Resnick 2003; Jensen 2003), and there has been no closer examination of the effects of democracy and political factors on the Japanese FDI alone.
Secondly, although a number of papers consider FDI flows to developed and developing countries separately, there are at best few studies that conducted a formal econometric examination of Democracy and Political factor as determinants of outward FDI flows from a rich country to developed and developing countries.\textsuperscript{4}

In fact, we found some differences in Japanese MNCs’ sensitivity to the democracy and political risk indices between developed and developing countries. Thus, it should be noted that the main goal of this paper is rather to offer an economic interpretation of the ambiguous overall effects of PR and Democracy on the MNCs outward FDI activity.

The rest of the paper is organized as follows. Section II offers our theoretical framework. Section III presents our empirical models and discusses the effects of explanatory variables on FDI. Section IV describes the data and methodology, and is followed by estimation results in section V. Section VI focuses on the interaction of Democracy and PR, and their effect on Japanese outward FDI. Section VII provides the summaries, limitations of the study and conclusions.

\textbf{II. Theoretical framework}

We examine two cases for PR and Democracy separately.

\textbf{II.1 Political Risk and FDI}

Our theory is based on the following assumptions:

(A-1) Assume a Japanese MNC that is planning to undertake FDI in a foreign country, and it is assumed that there exists a following function $F$:

$$F(PR,OLI,FDI)=0, \quad (1)$$

Where $F$ is assumed to be positive, continuous, and continuously differentiable real-valued function defined on the non-negative domain of PR, OLI (ownership, location and internalization) index, and FDI.

PR represents the political environment in the host country that is assessed by Japanese MNCs as an additional factor that influences their decision to invest. Since in our study PR is a composite index, it could be associated with Institutional Quality (IQ) depending on Japanese MNCs’ assessment of the factors composing PR. Furthermore, this assessment may depend on the level of countries’ economic development (developed and developing countries). Thus, higher PR may be associated with higher advantages and profitability for developed countries if the level of IQ is far above what is necessary for MNCs. On the other hand, for developing countries higher PR may be associated with lower advantages and profitability if MNCs are not satisfied with the level of IQ in the foreign countries.

\textsuperscript{4}For instance Wei (2000) and Asiedu and Lien (2011).
OLI represents a set of advantages in the sense of Dunning’s OLI’s framework. These advantages allow an MNC maximizing its profits when operating in the foreign market and, thus show their willingness to invest abroad.

FDI is the value of investment undertaken by an MNC in the host country.

(A-2) Assume that F is solved for OLI (advantages/profitability index) such that \(\text{OLI}=f(\text{PR},\text{FDI})\).

(A-3) Also, assume \(f\) as a positive, continuous, and continuously differentiable real-valued function.

Total differentiation of \(f\) for a given level of OLI yields:

\[
\frac{\partial f}{\partial \text{PR}} d\text{PR} + \frac{\partial f}{\partial \text{FDI}} d\text{FDI} = 0
\]

Equation (2) shows the "transformation curve" between PR and FDI, and thus:

\[
\frac{d\text{FDI}}{d\text{PR}} = \frac{f_{\text{PR}}}{f_{\text{FDI}}}
\]

where \(f_{\text{PR}}\) and \(f_{\text{FDI}}\) are partial derivatives of \(f\) with respect to FDI and PR. Since \(f\) is a transformation curve, the numerator (denominator) has an economic interpretation of the marginal cost of PR (FDI) in terms of OLI.

The inverse function rule implies:

\[
\frac{\partial \text{FDI}}{\partial \text{OLI}} = \frac{1}{f_{\text{FDI}}} \quad \text{and} \quad \frac{\partial \text{PR}}{\partial \text{OLI}} = \frac{1}{f_{\text{PR}}}
\]

Equations (3) and (4) yield:

\[
\frac{d\text{FDI}}{d\text{PR}} = \frac{f_{\text{PR}}}{f_{\text{FDI}}} \frac{\partial \text{FDI}/\partial \text{OLI}}{\partial \text{PR}/\partial \text{OLI}}
\]

Since higher OLI advantages are associated with higher profitability for an MNC, and, hence, higher FDI is undertaken, we postulate that:

\[
\frac{\partial \text{FDI}}{\partial \text{OLI}} > 0
\]

As explained above for PR, MNCs may differently assess changes in institutional quality in the host countries depending on their level of economic development. Specifically, we postulate that:

\[
\frac{\partial \text{PR}}{\partial \text{OLI}} > 0 \quad \text{if an increase in PR corresponds to higher cost of OLI, and, as a result a need for more OLI due to instability for developing countries, but}
\]

\[
\frac{\partial \text{PR}}{\partial \text{OLI}} < 0 \quad \text{if an increase in PR from too good institutions corresponds to lower cost of using OLI advantages, and, as result, a need for less OLI due to "more discipline" for developed countries}
\]

From (5), (6-1), (6-2-a) and (6-2-b) we can summarize the relationship between FDI and PR as follows:

\[
\frac{d\text{FDI}}{d\text{PR}} \begin{cases} > 0 & \text{for developing countries with poor institution} \\ < 0 & \text{for developed countries with too much better institution} \end{cases}
\]

Thus, the relationship (7) between FDI and PR may be depicted as an "inverted" U-shaped figure between PR and FDI. Figure 1a illustrates the relationship between PR and FDI in our theoretical setting: \(^5\)

\(^5\) We would like to thank Masahiro Endoh for suggesting an illustration to our theoretical model.
This relationship (7) implies the following two testable hypotheses:

**Hypothesis 1:** Higher PR is associated with lower FDI if developing countries whose level of PR has been well above the average PR values.

**Hypothesis 2:** Higher PR is associated with higher FDI if developed countries whose level of PR has been well below the average PR values.

### II.2 Democracy and FDI

The theoretical analysis is parallel to the previous one, and depends on the similar but slightly different assumptions as follows:

1. Assume a Japanese MNC that is planning to undertake FDI in a foreign country, and it is assumed that there exists a following function G:

   \[ G(DEM, OLI, FDI) = 0, \quad (8) \]

   where G is similarly defined as F in equation (1) on the non-negative domains of DEM, OLI (ownership, location and internalization) index, and FDI.

   DEM represents democracy level in the host country that is assessed by Japanese MNCs as an additional factor that influences their decision to invest. This assessment may depend on the level of countries’ economic development (developed and developing countries). Thus, higher Democracy may be associated with lower advantages and profitability for developed countries if MNCs view lack of monopolistic/oligopolistic opportunities as an impediment of their FDI activity. On the other hand, for developing countries, higher Democracy may be associated with higher advantages and profitability if MNCs are not satisfied with the level of property rights that they can obtain in the foreign countries.

   OLI and FDI are similarly interpreted as in equation (1).

2. Assume that G is solved for OLI (advantages/profitability index) such that OLI = g(DEM, FDI).

3. Also, assume g as a positive, continuous, and continuously differentiable real-valued function.

   Following the same procedure as for PR we derive

   \[
   \frac{dFDI}{dDEM} = -\frac{g_{DEM}}{g_{FDI}} = -\frac{\partial FDI/\partial OLI}{\partial DEM/\partial OLI} \quad (9)
   \]

   where \( g_{FDI} \) and \( g_{DEM} \) are partial derivatives of g with respect to FDI and DEM. Since higher OLI advantages are associated with higher profitability for an MNC, and, hence, higher FDI are undertaken, we similarly postulate that:

   \[ \frac{\partial FDI}{\partial OLI} > 0. \quad (10-1) \]
As explained above for DEM, MNCs may differently assess changes in Democracy in the host countries depending on their level of economic development. Specifically, we postulate that:

\[ \frac{\partial \text{DEM}}{\partial \text{OLI}} < 0 \] if an increase in DEM corresponds to a lower cost of using OLI advantages, and, as a result, a need for less OLI due to higher property rights and favorable business environment for developing countries, but

\[ \frac{\partial \text{DEM}}{\partial \text{OLI}} > 0 \] if an increase in DEM corresponds to higher cost of using OLI advantages, and, as a result, a need for more OLI due to lower monopolistic/oligopolistic opportunities for developed countries.

From (10-1), (10-2-a) and (10-2-b) we can summarize the relationship between FDI and DEM as follows:

\[ \frac{d\text{FDI}}{d\text{DEM}} < 0 \text{ for developing countries for higher property rights} \]
\[ \frac{d\text{FDI}}{d\text{DEM}} > 0 \text{ for developed countries for lower monopolistic advantages} \]

Thus, the relationship (11) between FDI and DEM may similarly be depicted as an "inverted" U-shaped figure between DEM and FDI as between FDI and PR in the previous case. Figure 1b illustrates this relationship between FDI and Democracy in our theoretical setting.

**Inset Figure 1b around here**

This relationship (11) implies the following two additional and testable hypotheses:

**Hypothesis 3**: Higher DEM is associated with higher FDI if developing countries whose level of DEM has been well below the average DEM values.

**Hypothesis 4**: Higher DEM is associated with lower FDI if developed countries whose level of DEM has been well above the average DEM values.

The following sections III-VI are devoted to testing these four hypotheses by means of various econometric estimations with the Japanese outward FDI data.

### III. Empirical Model and variables description

This section presents our basic specification for the empirical strategy. The dependent variable in our study is FDI flow from Japan to a ‘country i’ in US Dollar (FDI) and the independent variables are chosen as explained below.

The basic model for GMM (Generalized Method of Moments) is specified in a reduced form as:

\[ y_{at} = \delta y_{at-1} + X'_{at}\beta + \epsilon_{at}. \]

where \( y_{at} \) is the logarithm of 3-year averaged outward FDI from Japan into a host ‘country i’ at time \( t \) and \( X'_{at} \) denote an (1xk) vector of explanatory variables which vary in the cross-section and in the time dimension. \( \delta \) is a scalar. \( y_{at-1} \) is a lagged dependent variable. \( \epsilon_{at} \) is a stochastic error term, which is assumed to be uncorrelated over all \( i \) and \( t \).

The estimation form of the basic model is linearly specified as:
We use FDI flow as our dependent variable, as this first provides a larger number of observations and second, allows statistical inferences for flow effect of real FDI. In addition, we average the data over 3 years to smooth out cyclical fluctuations and transform them logarithmically. Data for FDI activity are collected from OECD database which provides data of Japanese FDI for a large number of countries for the period 1985 to 2010.6

PRit represents political environment for ‘country i’ at time t that has recently been emphasized as one of the most researchable issues in international economics, as reviewed and discussed in the previous section. Indeed, a political factor usually influences some economic phenomenon not only in domestic activities, but also in international environment, and FDI is one of them. The political index is calculated from the ECR index, and has been scored from 0 to 25 with a higher score indicating a lower political risk. The index is subtracted from the maximum value of 25 to indicate that a higher number is supposed to indicate higher “political risk”. According to the conventional wisdom, the coefficient of the Political risk is expected to have a negative sign as higher political risk might have adverse effects on FDI flows. However, the ECR index includes not only political risk, but also government and institutional assessment as the qualitative expert opinions. In addition, the ECR index also includes information and policy environment (see Table 1). Thus, it is likely that this multiple dimensionality of a composite index may have different effects on the MNCs' behavior for FDI, depending on the development stages of host countries, as formulated in the previous theoretical section II.1, and will be discussed later in more detail.

We use the statistics reported in US dollars in our analysis. This statistics was compiled by OECD statistical division from Bank of Japan and Japanese Ministry of Finance statistical sources.

6
International Country Risk Guide (ICRG) Democratic Accountability – scored 0-6 with a higher score indicating higher democracy.

Polity IV – scored “-10” to “+10” with a higher score indicating higher democracy and a lower score indicating a higher autocracy.

Freedom House (FH) Political Rights – scored 1-7 with a higher score indicating most free and a lower score indicating less free nations.

All the scores were normalized to lie in between zero and one with a higher value implying more democracy.7

In addition to PR and Democracy we use traditional explanatory variables that were used in many previous studies (e.g. Carr et al. 2001). We use LOG_GDP, as a measure of market size and trade/GDP as a measure of OPENNESS, for country i at time t. Human capital effect is measured by skill endowment difference for the host country relative to Japan (SD), and by log of employees compensation received in US$ per hour (LOG_W) as a proxy for labor cost. Finally, IC is a composite index of investment cost for ‘country i’ at time t that is regarded as impediments and difficulties in the operational activity of foreign affiliate in the host country.8

All else equal, higher market size, lower labor cost and lower investment cost should have a positive effect on FDI. Openness to trade is expected to stimulate vertical FDI and discourage horizontal FDI. The sign for SD is expected to be positive if Japanese MNCs are looking for cheap unskilled labor (as can happen for vertical-type FDI), and negative if Japanese FDI flows are attracted by host countries’ skilled labor abundance (as can happen for horizontal FDI).

This completes the explanation of our estimation model.

IV. Data and Methodology

Our panel data set consists of two sets and two dimensions: one dimension is cross-section (32 developed countries and 24 developing countries: i = 1,…,N), and the other is time dimension (5 periods of three-year averaged observations: 1995-1997; 1998-2000; 2001-2003; 2004-2006; 2007-2010: t=1,…,T).9 The total

7 For space consideration we report only the results for ICRG measure of Democracy. The results for Polity IV and Freedom House are available upon request.
8 The data source for real GDP (in constant 2000 US$) is World Bank WDI database. OPENNESS comes from Penn-World Tables. Skilled labour availability, labour cost and investment cost were derived from World Competitiveness Yearbook (WCY, hereafter) data. Labor cost was deflated by CPI price index. CPI was obtained from International Monetary Fund (IMF) statistical database. In case of Taiwan we used Taiwan National Statistics (http://eng.stat.gov.tw/mp.asp?mp=5). Data details are available upon request.
9 We use OECD membership as a criterion for highly-developed economies. Developed and developing countries in our study are listed in the Appendix table 1a.
10 The countries selection among others is limited by data availability.
number of observations in this context is 280 for all countries, 160 for developed countries and 120 for developing ones, and it can be considered adequate to produce robust estimations for the scope of the analysis.\textsuperscript{11} The data source for Japanese FDI is the OECD database, and for other variables different sources such as the WDI (the World Bank), the WCY (International Institute for Management Development), Penn-World Tables, and Euromoney.\textsuperscript{12}

We employ a panel data analysis in order to capture static and dynamic nature of the FDI flows, accounting for at the same time possible heteroscedasticity, autocorrelation and endogeneity. By including lagged FDI flows as an additional regressor we change a static model to a dynamic panel model. Generally the problems of autocorrelation, endogeneity and heteroscedasticity are inherent in economic data sets. First, some explanatory variables can be endogenous, and therefore OLS estimators might be biased and inconsistent. Note that our theoretical analysis implied that PR and Democracy endogenously affect FDI decision through OLI channel. Second, unobserved panel-level effects (fixed effects) may be correlated with the explanatory variables. Finally, the inclusion of lagged dependent variable can lead to autocorrelation.\textsuperscript{13} In order to deal with all these problems, a commonly used method for dynamic panels is the GMM estimator proposed by Arellano and Bond (1991). As their estimator is set up, the fixed effects are eliminated using first differences, and an instrumental variable estimation of the differenced equation is performed. However, a first difference has a weakness in unbalanced models, since it magnifies gaps in it. Due to the data characteristics our sample contains some missing data particularly for developing countries. Thus, we follow the second common transformation proposed by Arellano and Bover (1995) that is called “forward orthogonal deviations”. In contrast to the “first difference” it subtracts the average of all future available observations of a variable.\textsuperscript{14} Next, we use GMM style instruments as proposed by Holtz-Eakin, Newey, and Rosen (1988) in order to account for possible endogeneity of the explanatory variables. We perform the Hansen J-test of overidentifying restrictions for the selected instruments. All the regressions were shown to be robust according to this criterion. Finally, we do not include any additional (external) instruments.

V. Estimation results and discussions

We estimate equations (13) and (14) in order to analyze the Japanese FDI with our sample data under different econometric specifications. The results are presented in Tables 2 and 3 below.

\textsuperscript{11}The descriptive statistics of the data is available upon request.

\textsuperscript{12} In this study we emphasize the role of Political Risk and the effects of Democracy on Japanese MNCs activities only. Thus, caution must be taken when generalizing our conclusions for other FDI researches.

\textsuperscript{13}Nevertheless, a common constant (pooled OLS) and Fixed Effects methods’ analysis was also performed. We report them here in order to provide a comparison of coefficients values. According to Roodman (2009) the value of coefficient in GMM estimation is plausible to be expected to lie in between OLS and Fixed effects estimators values.

\textsuperscript{14}Indeed, a first difference method produced biased estimators and thus the results are not reported here.
Several interesting features are disclosed, and in what follows, we give some interpretations and evaluations for them. The coefficients of control variables are mainly consistent with the theoretical predictions and prior assumptions. Market size positively affects Japanese MNCs’ activity. As can be inferred from the signs of the coefficient of Openness, Japanese MNCs tend to be of horizontal type for developed countries ($\beta_1<0$) and of vertical-type for developing countries ($\beta_1>0$).\textsuperscript{15}

Now, we turn to the discussion of the effects of PR on the Japanese outward FDI. To answer this question we estimate equation (13).

***** Insert Table 2 around here *****

A seemingly puzzling result of the GMM estimation appears in case of Political risk ($PR_0$), a composite index of "political risk". The coefficient is statistically significant both for developed and developing countries. For developing countries it is negative and significant, and it corresponds to our initial presumption that the Japanese MNCs are concerned about political stability and reduce their investment when perceiving a higher political risk (GMM(h)). Thus, our Hypothesis 1 is statistically vindicated. For developed countries the coefficient is positive and statistically significant for Japanese FDI flows (see GMM(g)). Literally interpreted, this suggests that Japanese MNCs tend to invest in the more politically unstable countries, which is a counterintuitive finding. Our Hypothesis 2 for PR discussed in section II.1 suggests the economic interpretation of this non-monotonic response of FDI to PR. The next discussion is devoted to addressing in more details this seemingly puzzling phenomenon, and to offer our new hypothesis regarding difficulties in interpretation for aggregate indices.\textsuperscript{16,17}

\textsuperscript{15}The only unexpected result is a consistent positive sign of Wages and negative sign of lagged FDI implying that Japanese MNCs’ investments are encouraged by higher real wages and lower FDI in the previous period. Although this is seemingly puzzling result, we do not discuss it in details here and propose the following explanation. Higher wages might imply a existence of business environment impediments for operational activities. At the same time MNCs can benefit from this environment, since they can obtain a competitive advantage over local firms by attracting highly skilled local labor and establishing a more efficient management. Thus, MNCs can become more competitive at the local market and enjoy monopolistic advantages. To note that this result was encountered in a few previous studies as well (e.g. Wei 2000). In fact the data are three-year averages for five periods. Thus, a possible interpretation of lagged FDI negative effect might consist in the crisis effect (Asian crisis of 1997-1998 and the financial crisis started in 2007). It is likely that after the crisis occurred Japanese MNCs ceased their foreign activities, and, thus, the negative dynamic effect might be associated with this FDI decrease. This result was obtained in several other studies as well (e.g. Asiedu and Lien 2011, Bayoumi and Lipworth 1998). For instance, Bayoumi and Lipworth (1998) proposed an alternative interpretation as a stock adjustment process. According to them once the FDI stock is largely increased, it is followed by a diminution in subsequent FDI flows.

\textsuperscript{16}It is interesting to note that we are not the only one FDI research that encounters different and contradicting signs for developed and developing countries samples for PR. A similar sign pattern was reported in a recent empirical research by Peng and Beamish (2008) who discussed difficulties in interpreting the effect of another composite index, a National Corporate Responsibility Index (NCCI) on the Japanese outward FDI.

\textsuperscript{17}It is also interesting to note that a fact that effects of some composite indices may be ambiguous has been found in another area, the choice of the (optimal) exchange rate regime. Alesina and Wagner (2006) used the Business Environment Risk Intelligence (BERI) index and the Composite Indicator Dataset of the World Bank in order to examine the ambiguous effects of institutional quality on the choice of the exchange rate regime. Likewise, Bearce and Hallerberg (2011) used another aggregate index named "Democracy" which was compiled by Gurr, Jaggers, and Moore (1990) and scored from -10 (most autocratic) to 10 (most democratic), to investigate the choice of the exchange rate regime.
We first propose our hypothesis as follows: Since the composite index PR is constructed with six different qualitative components (see Table 1), they may have different effects on MNCs behaviour for developed and developing countries. We term these qualitative components as “institutional quality (IQ)”, reflecting multiple qualitative characteristics of host countries. Then, if MNCs are more concerned with IQ, there might be a case that an increase in IQ is associated with an increase in FDI positively. Specifically, if the level of ”government stability” (item 3 in Table 1) reflects such factors as juridical, bureaucratic and social development in the host country, a lower value of the PR variable means a relatively higher level of IQ, resulting in a lower level of law’s and social environment pressure. In other words, Japanese MNCs might expect lower pressure from the government and public sector, which could serve as an incentive for their FDI. From this point of view, starting from a point where PR has been sufficiently low (i.e., IQ has been high enough) as in developed countries, it is likely that Japanese MNCs could tolerate a slightly lower IQ (i.e. a slightly higher PR) to undertake additional FDI if profitable. Several reasons could be put forth. The first reason for it may be that, starting from a level of IQ far above what is necessary for FDI, an increase in PR (a decrease in IQ) means a slightly higher level of law’s and social environment pressure, which could be perceived as a good sign by Japanese MNCs, as it might imply “more discipline”. The second reason for it may be that, if an increase in PR (a decrease in IQ) is associated with slightly deteriorated information access within the market (item 4 in Table 1), then some wider and more ”profitable business opportunities” could be opened for Japanese MNCs due to the asymmetric information argument. Interestingly, the first reason put forth as above is similar in spirit to Peng and Beamish (2008, p.691) who emphasize MNC’s corporate responsibility. They used a word ”political environment” to have an opposite meaning to our PR, and concluded that “(a) loosening of (political) environment will attract more FDI” (emphasis added) for developed countries, because ”the levels of (political environment) may be far above what is necessary” for MNCs’ operations.

Needless to say, when PR is sufficiently high, implying a low level of IQ, as in a case of developing countries, a still higher level of PR (i.e. still lower IQ) is always associated with a lower FDI. This implies that Japanese MNCs may react differently to Political risk in developing host countries, compared with developed ones.

We formalize our hypotheses 1 and 2 of the effects of IQ on FDI with the following three steps. First, there is some level of IQ for which Japanese FDI is insensitive. Second, FDI may not be undertaken to countries with a very poor record of IQ. Thus, for a marginally lower IQ, FDI is reduced. Third, for very stable (developed) countries, FDI is undertaken. Moreover, a marginally lower level of IQ (i.e., higher PR) is interpreted as a good sign for a more disciplined economy, and thus more FDI.

\[18\] For a similar formulation for exchange rate regimes with IQ, see Alesina and Wagner (2006).
Let $F$ be the appropriately-defined real-valued functional relationship between PR and FDI. We postulate that the function $F(\text{PR}, \text{FDI} \mid Z) = 0$ be a real and multi-valued function on its domain, where $Z$ stands for the other variables in equation (15). To reiterate our hypothesis, it is equivalent to assume that there is some non-linearity between PR and FDI (cf. Alesina and Wagner, 2006; Peng and Beamish, 2008). Figure 2a, with our estimated elasticities (evaluated at the sample means), visualizes our Hypotheses 1 and 2.\(^{19}\)

**** Insert Figure 2a around here *****

As illustrated in the Figure, the elasticity of FDI with respect to PR evaluated at the mean values for developed countries is 0.24, which is more than that for developing countries in absolute term (i.e. 0.14). This implies that Japanese MNC’s are not insensitive to PR when investing in developed countries. It may be inferred from the Figure that the function $F$ attains a possibly non-unique maximum at some PR level somewhere in between the mean values of developed countries (3.64) and developing countries (10.67).\(^{20}\)

Does Democracy have an effect on Japanese Outward FDI flows? To answer this question we estimate equation (14) for developed and developing countries using democracy measure.\(^{21}\)

***** Insert Tables 3 around here *****

We are interested in the magnitude and significance of the coefficient $\beta_6$. For developing countries the estimators are positive and significant for some specifications (OLS(b), and FE(d)). This result suggests that an increase in Democracy is likely to encourage FDI inflows in developing countries. Indeed, if a higher democracy is associated with higher property rights, less corruption and higher institution quality, then Japanese MNCs perceive a secure business environment and more profitable opportunities, and increase their investments. For instance, an increase in Democracy level measured by ICRG (OLS(b)) from 3.00 to 4.00 can encourage an increase in Japanese FDI by 1.32\% ($\partial \text{FDI} / \partial \text{ICRG} = 1.32(4.00 - 3.00)$). This finding confirms the Hypothesis 3 for Democracy derived in section II.2.

However, for developed countries, the coefficient is negative and significant (GMM(a)). It implies that Japanese outward FDI are discouraged by an increased Democracy in developed countries. This result supports our Hypothesis 4, and could be explained by the fact that too much Democracy provides less opportunities for monopolistic advantages and MNCs’ interest lobbying in the government. Indeed, in a highly democratic societies (e.g. France) labor rights protection, anti-trust laws, local business protection increases the cost of using OLI advantages for MNCs. Thus, it is reasonable to assume that there is a certain level of Democracy

\(^{19}\)The null hypothesis of equality of the mean for PR, 3.64 (s.d.=3.49) for developed countries and 10.67 (s.d.=4.32) for developing countries, is rejected by a normal test with the 1% level of significance.

\(^{20}\)Figure 3 is inspired by the idea of Alesina and Wagner (2006). A similar figure can be found in Peng and Beamish (2008), but they have not mentioned the possibility of multi-valued function of $F(\text{PR}, \text{FDI} \mid Z) = 0$, or non-linearity.

\(^{21}\)The results are reported only for the ICRG measure of Democracy. The results for Polity and FH are available on request.
above which a further increase leads to an increased probability of lower FDI. Again, this finding is consistent with the Hypothesis 4 for Democracy derived in section II.2.

Similarly to PR, we formalize our Hypotheses 3 and 4 of the effects of Democracy on FDI with the three steps. Thus Japanese FDI are sensitive to changes in Democracy subject to different initial level of Democracy in various countries. We define a functional relationship between Democracy and FDI as the function G(Dem, FDI | Z) = 0.\(^{22}\)

Figure 2b illustrates this relationship inferred from the results in GMM(a) and OLS(b) with ICRG data as the proxy for Democracy [Table 2, GMM(a) and OLS(b)], and visualizes our Hypotheses 3 and 4.

As illustrated in the Figure, the elasticity of FDI with respect to Dem evaluated at the mean values for developed countries is -0.46, which is more than 2 times as larger than that for developing countries in absolute term (i.e. 0.16). This implies that Japanese MNCs are not insensitive to Democracy when investing in developed countries. It may be inferred from the Figure that the function G attains a possibly non-unique maximum at some ICRG democratic accountability level somewhere in between the mean values of developing countries (0.66) and developed countries (0.94).\(^{23}\)

Thus, both the results of separate regressions of Democracy and PR suggested an inverted U-shape relationship with respect to FDI. In order to test these hypotheses and to conduct a robustness check we pooled our sample and estimated the following equations:

\[
(\text{LOG}_\text{FDI}_t) = \delta (\text{LOG}_\text{FDI}_{t-1}) + \beta_1 \text{LOG}_\text{GDP}_t + \beta_2 \text{SD}_t + \beta_3 \text{LOG}_\text{W}_t + \beta_4 \text{OPENNESS}_t + \beta_5 \text{IC}_t + \beta_6 \text{PR}_t + \beta_7 \text{Dem}_t + \varepsilon_t. \tag{15}
\]

\[
(\text{LOG}_\text{FDI}_t) = \delta (\text{LOG}_\text{FDI}_{t-1}) + \beta_1 \text{LOG}_\text{GDP}_t + \beta_2 \text{SD}_t + \beta_3 \text{LOG}_\text{W}_t + \beta_4 \text{OPENNESS}^2_t + \beta_5 \text{IC}_t + \beta_6 \text{Dem}_t + \beta_7 \text{Dem}^2_t + \varepsilon_t. \tag{16}
\]

If our hypothesis is correct, then the expected sign of \(\beta_7\) for both equations (15) and (16) is negative, as it implies the concavity. The results are presented in the last columns of Tables 2 and 3, in which only the results of GMM for our variables of interest are reported.

Evidently, the coefficients of Democracy and PR are significant and negatively signed as expected. Thus, our hypothesis is successfully vindicated. Further investigation is needed to support our hypothesis on a broader framework. Nevertheless, in the next section we put forth a more complicated relationship between PR, Democracy and FDI.

\[^{22}\text{Function G possesses the same properties as function F. Dem stands for Democracy and Z for other variables in equation 16.}\]

\[^{23}\text{The null hypothesis of equality of the mean for Dem, 0.94(s.d.=0.1) for developed countries and 0.66(s.d.=0.22) for developing countries, is rejected by a normal test with the 1% level of significance.}\]
VI. Political Risk, Democracy and FDI

As suggested in the previous section, the results show that it is plausible to expect an inverted U-shape relationship between PR and FDI, and between Democracy and FDI. As a step further we might expect that there is a negative correlation between PR and Democracy.

In fact, Democracy represents the voice of citizens to influence political movement, political decisions. Thus it is directly related to political parties’ competitiveness. So the higher is democracy, the higher would be a pressure on the current government. As a consequence, the government cannot take inappropriate decisions like for example a big multinational company lobbying to pursue its interests of maximizing profit strategies on the expense of employees’ working conditions and environmental issues. PR is another side of the coin. It is more about how the system works, and it reflects such issues like corruption, bureaucracy, and confiscatory taxation policies.

The relationship between Democracy and PR can be gleaned from Figure 3. For instance, Kazakhstan (KZ) may serve as an extreme example of a developing country with relatively low level of Democracy (0.23) and high level political risk (0.57). Thus, despite abundance in natural resources (gas, oil etc) MNCs’ presence in this country is relatively limited. On the other hand, for example, Iceland (IS) is a developed country with relatively high level of Democracy (1.00) and low level of Political risk (0.18). As a result, there has been a relatively high presence of foreign investors; particularly in the banking sector (until the financial crisis started in 2008).

In sum, Democracy and PR represent two aspects of institutional environment. Nevertheless, they may influence each other. As shown in Figure 3 the correlation between Democracy and PR is negative, since higher Democracy might be associated with lower political risk. Appendix table 1b presents a simple correlation between PR and Democracy. Indeed all the coefficients are negative. Thus we could illustrate a more complicated relationship between PR, Democracy and FDI on a common 3-D figure as shown in Figure 4 below.

PR and Democracy might influence each other, and their interaction might have an effect on Japanese outward FDI as well. Mathur and Singh (2013) were probably one of the first who suggested a possible interaction between corruption (as a measure of PR) and Democracy. However, they left vigorous statistical analyses of its implications unanalyzed. In order to investigate a possible relationship between Democracy and
PR, we perform a Granger causality test. We follow an estimation procedure suggested by Toda and Yamamoto (1995) that takes into consideration non-stationarity of the data at their level.\textsuperscript{24}

We found that, for developed countries, the Granger test shows that Democracy causes PR, and for developing countries that PR causes Democracy\textsuperscript{25}. Thus, as a next step we estimate an interaction effect of Democracy and PR on Japanese Outward FDI. For developed countries we estimate PR + PR*Democracy, equation (17). For developing countries we estimate Democracy + PR*Democracy, equation (18).

\begin{equation}
\text{LOG}_{\text{FDI}}^t = \delta \text{LOG}_{\text{FDI}}^{t-1} + \beta_1 \text{LOG}_{\text{GDP}}^t + \beta_2 \text{SD}_t + \beta_3 \text{LOG}_{\text{W}}^t + \beta_4 \text{OPENNESS}_t + \beta_5 \text{IC}_t + \beta_6 \text{Dem}_t + \beta_7 \text{PR}_t + \beta_8 \text{Dem}_t \ast \text{PR}_t + \epsilon_t. \tag{17}
\end{equation}

\begin{equation}
\text{LOG}_{\text{FDI}}^t = \delta \text{LOG}_{\text{FDI}}^{t-1} + \beta_1 \text{LOG}_{\text{GDP}}^t + \beta_2 \text{SD}_t + \beta_3 \text{LOG}_{\text{W}}^t + \beta_4 \text{OPENNESS}_t + \beta_5 \text{IC}_t + \beta_6 \text{Dem}_t + \beta_7 \text{PR}_t + \beta_8 \text{Dem}_t \ast \text{PR}_t + \epsilon_t. \tag{18}
\end{equation}

The results of the estimation are presented in Table 2. As can be inferred from the results, the hypothesis of a nonlinear relationship between FDI and PR/Democracy is again confirmed. The direct effect of PR on Japanese outward FDI in case of developed countries is positive. For developing countries the result is significant, and it implies that it has a positive effect on Japanese MNCs activities.

Moreover, we can infer that, for developed countries, $\frac{\partial \text{fdi}}{\partial \text{pe}} = 0.04 – 0.36 \ast \text{ICRG}$. Thus a positive effect of an increase in PR on Japanese FDI is reduced if Democracy (ICRG Democratic accountability) increases.

For developing countries (based on ICRG estimations) $\frac{\partial \text{fdi}}{\partial \text{icrg}} = 1.81-0.21 \ast \text{PR}$. Thus, a positive effect of improvement in Democracy (ICRG) is reduced when PR increases (i.e. deterioration of political environment).

In sum, for developed countries Japanese MNCs might seek a lower democracy associated with higher political risk. This could be explained by the fact that more profitable opportunities open for Japanese MNCs. In addition, there would be more favourable conditions for monoplistic advantages. And since at the initial level democracy and PR are relatively high for developed countries, their slight deterioration does not threaten the profits of foreign affiliates of an MNC. This is a joint consequence of Hypotheses 2 and 4. For developing countries a higher democracy associated with a decrease in PR encourages FDI. This finding suggests that Japanese MNCs seek a higher democracy, which probably ensures more property rights. A decrease in political risk might be associated, for instance, with more information transparency, stronger regulatory and policy environment, which leads to more profitable opportunities for MNCs. Thus, FDI is increased, which is another joint consequence of Hypotheses 1 and 3.

\textsuperscript{24}The details of our estimation are available upon request.

\textsuperscript{25}However, no Granger causality was identified in PR and Polity relationship for developed countries, nor in PR and FH relationship for developing countries.
This result is highly important from the policy prescription perspective, as the host countries’ governments could consider democracy, political stability and the stage of economic development together when prescribing FDI attracting policies.

For developing countries an increase in Democracy is expected to stimulate more FDI. If associated with PR its increasing effect might be strengthened by lower PR. On the other hand, for developed countries, the issue may be more controversial. Up to a certain threshold level an increase in Democracy is expected to encourage FDI, but if an increase in Democracy goes further beyond the level that is necessary for MNCs operations, it might actually lead to less FDI. And the effect is even strengthened by higher PR. Thus, a certain balance might be necessary.

VII. Concluding remarks

This paper proposes a new interpretation for the Political Risk (PR) and Democracy effect on the cost of using OLI (Ownership, Location, and Internalization) advantages and, as follows, on the willingness to finance FDI by Japanese MNCs. We develop a simple model of a “transformation curve” between PR/Democracy and FDI. PR and Democracy level may correspond to higher/lower cost of using OLI advantages, i.e. higher/lower need for OLI subject to countries’ stage of economic development. This implies that the overall effect of composite PR index and Democracy could generate inverted U-shape responses of the MNCs’ FDI.

To test our hypothesis we examine empirically the outward Japanese FDI with a panel data of a total of 56 developed and developing countries for the period 1995-2010. A number of traditional determinants (GDP, Human capital indicators, Investment cost, Trade cost, etc.) are complemented with 2 non-traditional determinants for Japanese FDI, namely Democracy and Political Risk.

One of our main concerns in this paper, Political Risk (PR), is differently signed for developed and developing countries. For developing countries higher PR corresponds to lower willingness to finance FDI (consistent with hypothesis 1) due to political instability. For developed countries, the results imply that Japanese MNCs tend to increase FDI for a marginal increase in PR (consistent with hypothesis 2), because political stability in developed countries may be far above what is necessary for MNCs' operations.

Another concern in this paper, Democracy is differently signed for developed and developing countries as well. For developing countries higher Democracy is associated with higher willingness to finance FDI by Japanese MNCs (consistent with hypothesis 3) because of higher level of property rights and better business environment. For developed counties, higher Democracy turned out to be associated with lower willingness to finance FDI by Japanese MNCs (consistent with hypothesis 4) due to less monopolistic/oligopolistic
opportunities. In order to conduct robustness checks we pooled all the countries in one sample, and regressed FDI with a squared PR and Democracy term. An inverted U-shape relationship was confirmed robustly.

Finally, we examined a relationship between PR and Democracy and its possible interaction effect on Japanese outward FDI. The results showed that, for developed countries, Japanese MNCs might seek lower democracy associated with higher political risk, while for developing countries a higher democracy associated with a decrease in PR.

Obviously, our study has several limitations that call for future research extensions. We will list only two of them. First, it focuses exclusively on Japanese outward FDI. Although this is one of the study’s uniqueness, it is difficult to generalize the results for other FDI source countries’ MNCs. Second, we focus on aggregate level data. Our interest is to examine the country specifics which are linked directly to Democracy and PR at the country level. An industry or even firm-level analysis might suggest additional ways and effects of Democracy and PR on Japanese outward FDI. And it rests on our future research agenda depending on data availability.

Notwithstanding these limitations we conclude that our economic analysis of the effect of PR and Democracy on FDI flows puts into question a straightforward interpretation of the MNCs’ response to changes in the political environment. It may be misleading to examine only cost of PR and Democracy without considering its marginal cost in terms of OLI.

Finally, as far as the authors know, this is the first formal attempt to empirically examine the effects of political risk and democracy on Japanese FDI to developed and developing countries using the composite indexes. We successfully found that democracy and political risk are, as expected, significantly associated with Japanese FDI flows. These findings and our interpretation have important implications for future policy consideration by host countries and academic research on outward FDI activities.
REFERENCES


Li, Quan, and Adam Resnick. "Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries." *International Organization* Volume 57, Number 1, December 2003: 175-211.


<table>
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<tr>
<th>Political risk Component</th>
<th>Score (qualitative expert opinions)</th>
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<tr>
<td>Corruption</td>
<td>10=no corruption, 0=serious corruption</td>
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<td>Government non-payments/non-repatriation</td>
<td>10=no government interference, 0=high government interference</td>
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<td>Government stability</td>
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<td>Institutional risk</td>
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<tr>
<td>Regulatory and policy environment</td>
<td>10=highly consistent, 0=no regulatory environment exists</td>
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Note: t-statistics in parentheses. *, **, and *** mean significant at the 10, 5, and 1% level, respectively.

*The null hypothesis is that the overidentification restriction is valid.
Table 3 Democracy (ICRG) effects on Japanese outward FDI

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</tr>
</tbody>
</table>

Note: t-statistics in parentheses. *, **, and *** mean significant at the 10, 5, and 1% level, respectively.

*aThe null hypothesis is that the overidentification restriction is valid
Figure 1a. Relationship between PR and FDI (theoretical interpretation)

Figure 1b. Relationship between Democracy and FDI (theoretical interpretation)
Figure 2a. Relationship between PR and FDI ($\eta=$elasticity of FDI with respect to PR)

![Graph showing the relationship between PR and FDI.](image)

Note: Figures on the axes are the sample means.

Figure 2b. Relationship between Democracy and FDI ($\eta=$elasticity of FDI with respect to Democracy)

![Graph showing the relationship between Democracy and FDI.](image)

Note: Figures on the axes are the sample means.
Figure 3. Relationship between ICRG and PR

Note: ICRG ([0,1] scale) and PR ([0,1] scale), 56 countries, 1995-2010. Values are averaged by country from 1995 to 2010. A higher ICRG value is associated with higher level of democracy. A higher PR value is associated with increased political risk. The regression represented by the fitted line yields a slope coefficient of -0.4208, $R^2 = 0.2326$. 

$y = -0.4208x + 0.6142$

$R^2 = 0.2326$
Figure 4. Relationship between Democracy, PR and FDI

Democracy – shows increase in democracy
PR – shows increase in the risk for investment
Developed countries
Developing countries
Developed countries
Developing countries
Corr (PR, Dem) < 0
FDI
Democracy
Political Risk
Appendix

Appendix table 1a List of countries used in the study

<table>
<thead>
<tr>
<th>Developed countries (32 countries)</th>
<th>Developing countries (24 countries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia (AU), Austria (AT), Belgium (BE), Canada (CA), Chile (CL), Czech Republic (CZ), Denmark</td>
<td>Argentina (AR), Brazil (BR), Bulgaria (BG), China (CN), Colombia (CO), Hong Kong (HK), India (IN),</td>
</tr>
<tr>
<td>(DK), Finland (FI), France (FR), Germany (DE), Greece (GR), Hungary (HU), Iceland (IS), Ireland</td>
<td>Indonesia (ID), Jordan (JO), Kazakhstan (KZ), Malaysia (MY), Peru (PE), Philippines (PH), Qatar (QA),</td>
</tr>
<tr>
<td>(IE), Israel (IL), Italy (IT), Korea (KR), Luxembourg (LU), Mexico (MX), Netherlands (NL), New</td>
<td>Romania (RO), Russia (RU), Singapore (SG), South Africa (ZA), Taiwan (TW), Thailand (TH), United</td>
</tr>
<tr>
<td>Zealand (NZ), Norway (NO), Poland (PL), Portugal (PT), Slovakia (SK), Slovenia (SL), Spain (ES),</td>
<td>Arab Emirates (AE), Ukraine (UA), Venezuela (VE), Vietnam (VN)</td>
</tr>
<tr>
<td>Sweden (SE), Switzerland (CH), Turkey (TR), United Kingdom (UK), United States (US)</td>
<td></td>
</tr>
</tbody>
</table>

Appendix table 1b Correlations between PR and Democracy for a pooled sample of 56 countries

<table>
<thead>
<tr>
<th>Correlation with PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polity IV</td>
</tr>
<tr>
<td>t-statistics</td>
</tr>
<tr>
<td>ICRG Democratic accountability</td>
</tr>
<tr>
<td>t-statistics</td>
</tr>
<tr>
<td>Freedom House</td>
</tr>
<tr>
<td>t-statistics</td>
</tr>
</tbody>
</table>